

AMENDMENTS TO THE CLAIMS

1. (Original) A method for producing a polyrotaxane comprising:

an inclusion step in which carboxylated polyethylene glycol having a carboxyl group at each end and cyclodextrin molecules are mixed together, to obtain a pseudopolyrotaxane in which the carboxylated polyethylene glycol is included in the cavities of cyclodextrin molecules in a skewered manner; and

a capping step in which capping groups each having a group that reacts with a carboxyl group are reacted with the pseudopolyrotaxane, to obtain a polyrotaxane having at each end a capping group.

2. (Original) A method for producing a polyrotaxane comprising:

an inclusion step in which carboxylated polyethylene glycol having a carboxyl group at each end and cyclodextrin molecules are mixed, to obtain pseudopolyrotaxane in which the carboxylated polyethylene glycol is included in the cavities of cyclodextrin molecules in a skewered manner; and

a capping step in which the pseudopolyrotaxane is reacted with capping groups each having a $-NH_2$ group or a $-OH$ group, to obtain a polyrotaxane having at each end $-CO-NH-(\text{capping group})$ or $-CO-O-(\text{capping group})$.

3. (Original) The method according to Claim 1 or 2, wherein the carboxylated polyethylene glycol is prepared by the oxidation of polyethylene glycol with 2,2,6,6-tetramethyl-1-piperidinyloxy radical (TEMPO).

4. (Original) A polyrotaxane comprising a carboxylated polyethylene glycol included in the cavities of cyclodextrin molecules in a skewered manner, wherein the

carboxylated polyethylene glycol has at each end a capping group to prevent the dissociation of the cyclodextrin molecules, the each end of the carboxylated polyethylene glycol has a structure obtained by the reaction between a carboxyl group and a capping group having a group that reacts with a carboxyl group.

5. (Original) The polyrotaxane comprising a carboxylated polyethylene glycol included in the cavities of cyclodextrin molecules in a skewered manner, wherein the carboxylated polyethylene glycol has at each end a capping group to prevent the dissociation of the cyclodextrin molecules, and the capping group at each end has a structure of a -CO-NH-BI group or a -CO-O-BI group.

6-8. (Canceled)